

ii) a monomer unit selected from the group consisting of:

- B2 (pub C')*  
*cont'g*
- a) units capable of having an anionic charge at a pH of from about 4 to about 12;
  - b) units capable of having an anionic charge and a cationic charge at a pH of from about 4 to about 12;
  - c) units having no charge at a pH of from about 4 to about 12; and
  - d) mixtures thereof;
- b) an effective amount of a detergent surfactant; and
  - c) the balance carriers and other adjunct ingredients;
- provided that the pH of a 10% aqueous solution of said laundry detergent composition is from about 4 to about 12.

#### Remarks

Applicants acknowledge the Examiner's finding that Claims 34 and 35 would be allowable if rewritten in independent form.

By the present amendment, Applicants have cancelled Claim 29 without prejudice. Applicants have amended Claims 28 and 38 to define the claimed invention with greater specificity. Support for the amendments to Claims 28 and 38 is found in the Specification and in the originally filed Claims, more specifically in cancelled Claim 29. A **MARKED UP VERSION OF THE CLAIMS** is attached hereto.

No new matter has been added by the amendment.

No additional claims fee is believed to be due.

Upon entry of this amendment, Claims 28-38 are pending.

#### Rejections Under 35 USC 102:

Claims 28, 29, 32, 36 and 37 are rejected by the Examiner under 35 USC 102 as allegedly being anticipated by EP 560 519 A2 ("EP '519). The Examiner asserts that EP '519 discloses hard surface cleaning compositions, especially automatic dishwashing detergent compositions comprising copolymers of dimethylamino ethyl methacrylate and acrylic acid, as well as terpolymers containing same, as well as butyl acrylate, styrene or ethyl acrylate. Accordingly, the Examiner concludes that the claimed invention, as claimed in Claims 28, 29, 32, 36 and 37, is anticipated by EP '519.

Applicants respectfully disagree with the Examiner's conclusion. Applicants respectfully submit that EP '519 fails to teach each and every element of the claimed invention, as claimed in independent Claim 28, as amended. Applicants submit that EP '519 teaches polymeric materials ("polymeric additives") that are low foaming and thus are useful in automatic machine dishwashing detergent formulations. (EP '519, page 2, lines 11-16). The low foaming property of the polymeric additives of EP '519 is a critical feature. (EP

`519, page 2, lines 11-16). Applicants submit that EP `519 fails to teach a polymeric material that is a suds stabilizer as claimed in Claim 28, as amended. In fact, the polymeric materials taught in EP `519 are the opposite of the polymeric materials ("suds stabilizers") of the present invention.

Accordingly, Applicants respectfully submit that even though EP `519 teaches copolymers and/or terpolymers derived from monomers identical to the claimed invention, as claimed in Claim 28, EP `519 does not anticipate Claim 28, as amended. The Court of Appeals for the Federal Circuit in E.I. Du Pont De Nemours & Company v. Phillips Petroleum Company, 849 F2d 1430; 7 USPQ2d 1129 (Fed. Cir. 1988); stated:

On occasion, particularly with polymers, structure alone may be inadequate to define the invention, making it appropriate to define the invention in part by property limitations.

E.I. Du Pont De Nemours & Company v. Phillips Petroleum Company, 849 F2d 1430, 1435; 7 USPQ2d 1129 (Fed Cir. 1988).

The Federal Circuit later stated in E.I. Du Pont De Nemours & Company v. Phillips Petroleum Company, 849 F2d 1430; 7 USPQ2d 1129;

[I]nterpolymers as compositions . . . can be permissibly defined in terms of structure and properties.

E.I. Du Pont De Nemours & Company v. Phillips Petroleum Company, 849 F2d 1430, 1436; 7 USPQ2d 1129 (Fed. Cir. 1988).

Applicants respectfully submit that the Examiner must consider structure as well as properties of the claimed elements of Claim 28, as amended.

Applicants submit that even though the monomers used in the polymeric materials of EP `519 and the claimed invention, are identical, the end product is not. This is evidenced by the diametrically opposed properties.

In light of the foregoing, Applicants respectfully submit that EP `519 fails to anticipate Claim 28, as amended, because EP `519 fails to teach each and every element of Claim 28, as amended. Specifically, EP `519 fails to teach that its polymeric materials are suds stabilizers as claimed in Claim 28, as amended. MPEP 2131. Further, Applicants respectfully submit that Claims 30-37 (Claim 29 has been cancelled), which ultimately depend from Claim 28, as amended, are not anticipated by EP `519 for the same reasons that Claim 28, as amended, is not anticipated by EP `519.

**Rejections Under 35 USC 103:**

Claims 28-33, 36 and 37 are rejected by the Examiner under 35 USC 103 as allegedly defining obvious subject matter over EP `519 discussed above. The Examiner asserts that it would have been obvious at the time the invention was made to make the claimed composition because EP `519 teaches that all of the ingredients recited by Applicants are suitable for inclusion in a surfactant composition. The person of ordinary skill in the surfactant art would expect the recited compositions to have properties similar to those compositions which are exemplified.

As stated previously with respect to the 35 USC 102 rejections, Applicants respectfully submit that Claims 28, 30-33, 36 and 37 (Claim 29 has been cancelled) are not rendered obvious over EP `519 because EP `519 fails to teach each and every element of Claim 28 (the independent claim), as amended. MPEP 2143.03. Even if EP `519 did teach each and every element of the claimed invention as claimed in Claim 28, as amended, Applicants submit that EP `519 teaches away from the claimed invention as claimed in Claim 28, as amended, because the polymers taught in EP `519 are low foaming polymers. Further, Applicants respectfully submit that Claims 30-33, 36 and 37 (Claim 29 has been cancelled), which ultimately depend from Claim 28, as amended, are not rendered obvious over EP `519. MPEP 2143.03.

Claims 28, 30-33, 37 and 38 are rejected by the Examiner under 35 USC 103 as allegedly defining obvious subject matter over U.S. Patent No. 4,579,681 to Ruppert et al. ("Ruppert"). The Examiner asserts that Ruppert teaches laundry detergent compositions comprising deterative surfactants and a copolymer of N-vinyl caprolactam. The copolymers have a molecular weight of about 1,000-1,000,000. The Examiner further asserts that Ruppert teaches suitable copolymers as comprising diethylaminoethyl methacrylate (DMAEMA). The Examiner concludes that it would have been obvious at the time the invention was made to make the claimed composition because Ruppert teaches that all of the ingredients recited by the Applicants' claims 28, 30-33, 37 and 38 are suitable for inclusion in a surfactant composition.

Applicants respectfully submit that Claims 28 and 38, as amended, are not rendered obvious over Ruppert because Ruppert fails to teach each and every element of Claims 28 and 38 (the independent claims), as amended. MPEP 2143.03. Further, Applicants respectfully submit that Claims 30-33 and 37 which ultimately depend from Claim 28, as amended, are not rendered obvious over Ruppert. MPEP 2143.03.

**Conclusion**

Applicants have made an earnest effort to place the present application in condition for allowance and to distinguish the claimed invention from the applied art. WHEREFORE, entry of the claim amendments, reconsideration of the rejection of the claims in light of the amendments and Remarks provided and allowance of Claims 28 and 30-38, as amended, are respectfully requested.

Respectfully submitted,

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by 

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November 25, 2002  
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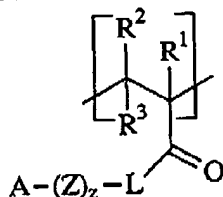
# MARKED UP VERSION OF CLAIMS

28. A suds-forming and/or foam-forming composition having increased suds volume and suds retention, said composition comprising:

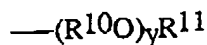
- a) an effective amount of a polymeric suds stabilizer, said stabilizer comprising:
  - i) units capable of having a cationic charge at a pH of from about 4 to about 12;

provided that said suds stabilizer has an average cationic charge density from about 0.05 to about 5 units per 100 daltons molecular weight at a pH of from

about 4 to about 12, wherein the polymeric suds stabilizer is a polymer comprising at least one monomeric unit of the formula:



wherein each of  $R^1$ ,  $R^2$  and  $R^3$  are independently selected from the group consisting of hydrogen,  $C_1$  to  $C_6$  alkyl, and mixtures thereof; L is O; Z is selected from the group consisting of:  $-(CH_2)-$ ,  $(CH_2-CH=CH)-$ ,  $-(CH_2-CHOH)-$ ,  $(CH_2-CHNR^6)-$ ,  $-(CH_2-CHR^{14}-O)-$  and mixtures thereof; wherein  $R^{14}$  is selected from the group consisting of hydrogen,  $C_1$  to  $C_6$  alkyl, and mixtures thereof; z is an integer selected from about 0 to about 12; A is  $NR^4R^5$ , wherein each of  $R^4$  and  $R^5$  are independently selected from the group consisting of hydrogen,  $C_1$ - $C_8$  linear or branched alkyl, alkyleneoxy having the formula:



wherein  $R^{10}$  is  $C_2$ - $C_4$  linear or branched alkylene, and mixtures thereof;  $R^{11}$  is hydrogen,  $C_1$ - $C_4$  alkyl, and mixtures thereof; y is from 1 to about 10; or  $NR^4R^5$  form a heterocyclic ring containing from 4 to 7 carbon atoms, optionally containing additional hetero atoms, optionally fused to a benzene

ring, and optionally substituted by C<sub>1</sub> to C<sub>8</sub> hydrocarbyl; and wherein said polymeric suds stabilizer has a molecular weight of from about 1,000 to about 2,000,000 daltons; and

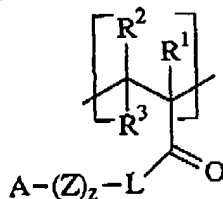
ii) a monomer unit selected from the group consisting of:

- a) units capable of having an anionic charge at a pH of from about 4 to about 12;
  - b) units capable of having an anionic charge and a cationic charge at a pH of from about 4 to about 12;
  - c) units having no charge at a pH of from about 4 to about 12; and
  - d) mixtures thereof;
- b) an effective amount of a deterative surfactant; and
- c) the balance carriers and other adjunct ingredients;
- provided that a 10% aqueous solution of said suds-forming and/or foam-forming composition has a pH of from about 4 to about 12.

38. A method for providing increased suds volume and increased suds retention while washing a fabric and/or garment in need of cleaning, comprising the step of contacting said fabric and/or garment with an aqueous solution of a laundry detergent composition, said laundry detergent composition comprising:

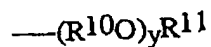
- a) an effective amount of a polymeric suds stabilizer, said stabilizer comprising:
  - i) units capable of having a cationic charge at a pH of from about 4 to about 12;

provided that said suds stabilizer has an average cationic charge density from about 0.05 to about 5 units per 100 daltons molecular weight at a pH of from about 4 to about 12, wherein the polymeric suds stabilizer is a polymer comprising at least one monomeric unit of the formula:



wherein each of R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are independently selected from the group consisting of hydrogen, C<sub>1</sub> to C<sub>6</sub> alkyl, and mixtures thereof; L is O; Z is selected from the group consisting of: -(CH<sub>2</sub>)-, (CH<sub>2</sub>-CH=CH)-, -(CH<sub>2</sub>-CHOH)-, (CH<sub>2</sub>-CHNR<sup>6</sup>)-, -(CH<sub>2</sub>-CHR<sup>14</sup>-O)- and mixtures thereof; wherein R<sup>14</sup> is selected from the group consisting of hydrogen, C<sub>1</sub> to C<sub>6</sub> alkyl, and mixtures thereof; z is an integer selected from about 0 to about 12; A is NR<sup>4</sup>R<sup>5</sup>, wherein each of R<sup>4</sup> and R<sup>5</sup> are independently selected from the group

consisting of hydrogen, C<sub>1</sub>-C<sub>8</sub> linear or branched alkyl, alkyleneoxy having the formula:



wherein R<sup>10</sup> is C<sub>2</sub>-C<sub>4</sub> linear or branched alkylene, and mixtures thereof; R<sup>11</sup> is hydrogen, C<sub>1</sub>-C<sub>4</sub> alkyl, and mixtures thereof; y is from 1 to about 10; or NR<sup>4</sup>R<sup>5</sup> form a heterocyclic ring containing from 4 to 7 carbon atoms, optionally containing additional hetero atoms, optionally fused to a benzene ring, and optionally substituted by C<sub>1</sub> to C<sub>8</sub> hydrocarbyl; and wherein said polymeric suds stabilizer has a molecular weight of from about 1,000 to about 2,000,000 daltons; and

ii) a monomer unit selected from the group consisting of:

- a) units capable of having an anionic charge at a pH of from about 4 to about 12;
  - b) units capable of having an anionic charge and a cationic charge at a pH of from about 4 to about 12;
  - c) units having no charge at a pH of from about 4 to about 12; and
  - d) mixtures thereof;
- b) an effective amount of a deterative surfactant; and
  - c) the balance carriers and other adjunct ingredients;
- provided that the pH of a 10% aqueous solution of said laundry detergent composition is from about 4 to about 12.